

species, which was established by Ricardo for specimens from Queensland and Victoria. The range of the species—the specimens in our collection came from Northam—is thus very wide, extending completely across the Australian continent. The specimens, which include male and female examples, do not differ from those described for the Eastern States. The size is markedly different from that of *Blepharotes coriarius*, Wiedemann, being smaller—our specimens of *B. coriarius* are 40 mm., whilst *B. flavus* is ♂ 30 mm. and ♀ 30–34 mm. Ricardo states also that *B. flavus* is smaller than the species *B. coriarius*, but the dimensions given in her paper are just the opposite—*B. coriarius*, ♂ 27 mm.; *B. flavus*, ♂ 30, ♀ 35 mm. This must be a mistake, and, as the difference in size is considerable and of some importance, it is mentioned here.

LITERATURE.

- RICARDO. "A Revision of the Asilidæ of Australasia." *Ann. & Mag. Nat. Hist.* ser. 8, vols. ix., x., & xi. 1912 & 1913.
 WHITE. "New Australian Asilidæ." *Proc. Roy. Soc. Tasmania.* 1913–15.
 WALKER. 'Insecta Saundersiana.—Diptera.' London, 1856.
 LOEW. "Ueber die europäischen Raubfliegen (Diptera asilica)." *Linnaea entomologica.* Berlin, 1849.

EXPLANATION OF PLATE XV.

- Fig. 1. Phellus glaucus.*
Fig. 2. Phellus piliferus, sp. n.
Fig. 3. Questopogon clarkii, gen. et sp. n.
Fig. 4. Machimus forrestii, sp. n.

LIII.—*Note on some Young Stages of Gecarcoidea lalandii, Milne-Edwards.* By GLADYS E. WEBB, M.Sc., Assistant in Zoology Department, University College, London.

Gecarcoidea lalandii, M.-Edw., is the common Red Crab of Christmas Island. It is mentioned (under the name of *Gecarcinus lagostomus*) by Dr. C. W. Andrews in the 'Monograph of Christmas Island' (1900), where its annual migration to the sea for the purpose of hatching off its eggs is also described.

The following account of the collection of young stages believed to belong to this species is given by Dr. W. T. Calman (*Proc. Zool. Soc.* 1909, p. 710):—"On his



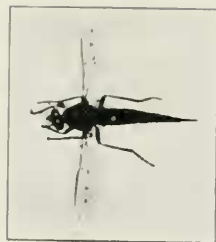
FIG. 2.



FIG. 3.



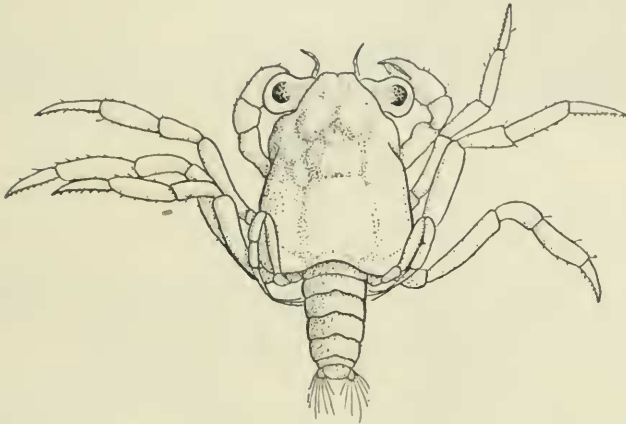
FIG. 4.



Asilidæ from Western Australia.

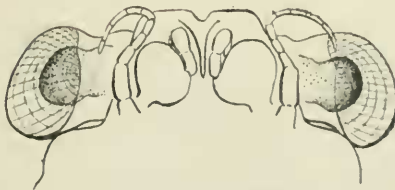
(Dr. Andrews's) visit to the island in 1908, he obtained specimens of a large *Megalopa*-larva, which occurred in enormous quantities in the sea shortly after the migration, and also of a small crab which appeared in similar numbers at a slightly later date. It seems practically certain that these larvæ and young can belong to no other species than *G. lalandii*, and it is hoped that it may be possible to obtain the earlier stages and to give a complete account of the life-history."

Fig. 1.



Megalopa stage. Dorsal view. Length of carapace = 3.7 mm.

Fig. 2.



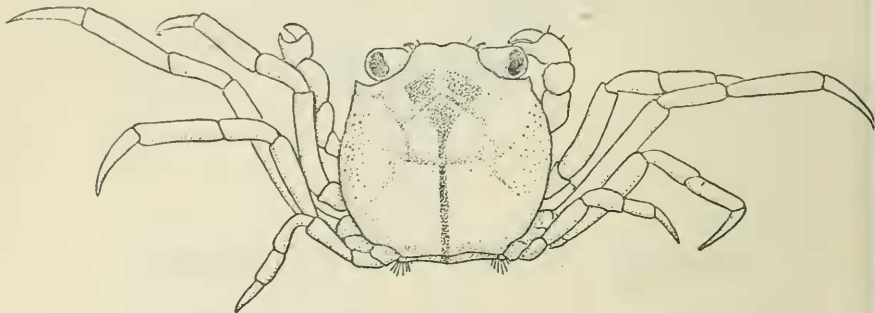
Ventral view of head-region. Megalopa stage. $\times 38$.

Unfortunately, up to the present no earlier stages have been collected, so this description includes only the megalopa and young post-larval stage mentioned above. It seems probable, however, from the large number and small size of the eggs carried by the berried female, that the young do hatch at an early stage, probably as a zœa or protozœa.

The appendages in both these stages are typically Brachyuran in character, the antennular statocyst being particularly well-developed (fig. 2). The chief feature of interest presented by the Megalopa is the size and position of the last pair of thoracic legs. These are much smaller than the preceding pairs, and the inner margin of the last joint or dactylopodite is not serrate, as in the other claws, but quite smooth, and carries a terminal group of three long setæ (fig. 1). This slender last pair of legs is more dorsal than the others, and is carried bent forwards on the upper surface of the carapace, often with the last three joints closely flexed on the proximal joints.

In the next stage (fig. 3) the fifth pair of legs is not noticeably small in proportion to the other thoracic legs, nor does it terminate in a group of setæ; it is, moreover, carried

Fig. 3.



First young stage. Dorsal view. Length of carapace = 4.2 mm.

extended laterally in a normal position, no longer bent up over the back of the animal as in the preceding stage. Evidently, therefore, this peculiar character of the fifth pair of legs is confined solely to the megalopa stage of the life-history; there is no trace of it in the adult crab.

The small size and dorsal position of the fifth thoracic legs in the adult is a character which is typical of certain groups among the Brachyura. These are the Dromiacea; the Dorippidæ and Raninidæ among the Oxystomata; and the Palicidæ and Ptenoplacidæ among the Brachygnatha.

It is not so easy to determine how common this feature is in the megalopa stage of the Brachyura, as the literature on the larval stages is still very incomplete.

It seems, however, that the three main points comprised in